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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Yosef Gross

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EXAMINER

NIA, ALIREZA

ART UNIT

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3739

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/523,578	Applicant(s) GROSS ET AL.	
	Examiner ALIREZA NIA	Art Unit 3739	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 March 2008 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date | 6) <input type="checkbox"/> Other: _____ |

05/13/05;02/10/06;06/28/06;07/20/06;01/09/07;04/05/07.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

3. With respect to the recitation “wherein during expansion of said second expandable element, obstruction of the radial expansion of said expandable element causes the axial expansion of said second expandable element” on lines 5-7 in claim 1, is unclear and vague. Since the second expandable element is an element by itself, it cannot obstruct itself and cause itself to expand axially. It would have made sense for the obstruction of the radial expansion of the second expandable element to have been caused by an element other than the second expandable element, the other element also causing the axial expansion of the second expandable element by exerting some type of a force or pressure on the second expandable element. Claim 1 is examined as best understood.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 15 is rejected under 35 U.S.C. 102(b) as being anticipated by Madni 6,007,482.

6. Madni teaches a carrier 10 comprising a fluid passageway 29,30, an expandable element 27,28 mounted on a distal portion 11 of said carrier 10 and in fluid communication with said fluid passageway 29,30, said expandable element 27,28 comprising a flexible sleeve 27,28, wherein in a first orientation 27',28', said flexible sleeve 27,28 is folded into itself (fig. 2), and in a second orientation 27,28 fluid at least partially fills said flexible sleeve 27,28 and at least partially unfolds said flexible sleeve 27,28, so as to extend said expandable element 27,28 distally outwards from said carrier 10, and an imaging device 12 disposed in said expandable element 27,28 via 19,21 (col. 1, lines 61-67, col. 2, lines 1-67, figs. 1,2).

7. Claims 18-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Limon 5,476,505.

8. With respect to claim 18-22, Limon discloses a carrier 20,32,34, at least one traction member 10 comprising a loop 10 extending from said carrier 20,32,34, and an actuator 54,56 in operative communication with said at least one traction member 10 via 32,34 said actuator moving said loop 10 relative to said carrier 20, wherein said loop 10 has a helical shape that at least partially corkscrews around a periphery of said carrier 20 (fig. 1), wherein said loop 10 protrudes from a side 44 of said carrier 20 and extends towards a proximal end of said carrier 20 (col. 3, lines 50-67, col. 4, lines 1-67, fig. 1). Limon also discloses said loop 10 protrudes from a side 44 of said carrier 20 and extends towards a distal end of said carrier 20 (fig. 1), wherein said loop 10 is expandable and contractible via 54,56 (col. 3, lines 50-67, col. 4, lines 1-67).

9. Claim 24 is rejected under 35 U.S.C. 102(b) as being anticipated by Inaba 4,995,396.

10. Inaba teaches a carrier 1, a percussion device 5,6 mounted on a distal portion 4 of said carrier 1, and an imaging device 20,21,24,46 mounted on the distal portion of said carrier 1 (col. 4, lines 31-68, col. 5, lines 1-30).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Utsugi 4,148,308 in view of Ohshiro 4,040,413.

13. With respect to claims 1, 8, 9, and 12, Utsugi discloses a system comprising a first outwardly expandable element 12 and a second outwardly expandable element 13 mounted on said carrier 11, wherein said second expandable element 13 is expandable both radially and axially (fig. 4c), wherein during expansion of said second expandable element 13, obstruction of the radial expansion of said second expandable element 13 causes the axial expansion of second expandable element 13 to propel said carrier 11.

14. However, Utsugi fails to positively disclose an imaging device assembled on a carrier. Also Utsugi fails to positively disclose the imaging device is mounted at a distal end of the carrier, distally of the first and second expandable elements. Moreover, Utsugi fails to positively disclose a light source disposed in said carrier as well as control wires disposed in said carrier.

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15. Ohshiro teaches an analogous system having similar expandable elements comprising an imaging device 10a,14,15 assembled/mounted on a distal end 13a of a carrier 12 (fig. 1, col. 2, lines 33-68, col. 3, lines 1-16), distally of a first and second expandable elements 17a,17b.

Ohshiro also teaches a light source 16 disposed in said carrier 12 as well as control wires disposed in said carrier 12 used for the purpose of controlling/bending (col. 2, lines 58-65), resulting in an improved endoscope with a field of view of which is considerably large in comparison with the conventional endoscopes which can be easily inserted into the intestines, the duodenum, and other body cavities (col. 1, lines 35-40).

16. It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the system of Utsugi with the above discussed limitations as taught by Ohshiro in order to have provided an improved endoscope with a field of view of which is considerably large in comparison with the conventional endoscopes which can be easily inserted into the intestines, the duodenum, and other body cavities during surgery.

17. With respect to claim 2, Utsugi in view of Ohshiro disclose the invention as discussed above. Utsugi further teaches said first expandable element 12 is fixed axially to said carrier 11, and said second expandable element 13 is slidable axially relative to said carrier 11 (figs. 4c,4d).

18. With respect to claim 3, Utsugi in view of Ohshiro disclose the invention as discussed above. Utsugi further teaches said carrier 11 is formed with first 32 and second 40 apertures in fluid communication with said first 12 and second 13 expandable elements, respectively (col. 3, lines 1-68, fig. 3).

19. With respect to claim 4, Utsugi in view of Ohshiro disclose the invention as discussed above. Utsugi further teaches a first supply tube 34 disposed in said carrier 11 in fluid

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communication with said first aperture 32, and a second supply tube 41 disposed in said carrier 11 in fluid communication with said second aperture 40 (col. 3, lines 1-68, fig. 3).

20. With respect to claim 5, Utsugi in view of Ohshiro disclose the invention as discussed above. Utsugi further teaches said first 12 and second 13 expandable elements are expandable to different shapes (figs. 4b4e).

21. With respect to claim 6, Utsugi in view of Ohshiro disclose the invention as discussed above. Utsugi further teaches the first expandable element 12 is expandable substantially radially with negligible axial expansion (figs. 4c,4d).

22. With respect to claim 7, Utsugi in view of Ohshiro disclose the invention as discussed above. Utsugi further teaches the second expandable element 13 is expandable generally spherically (figs. 4b-4e).

23. Claims 10, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Utsugi 4,148,308 in view of Ohshiro 4,040,413 further in view of Heckeke 4,737,142.

24. Utsugi in view of Ohshiro disclose the invention as discussed above. However, Utsugi in view of Ohshiro fails to positively disclose a suction tube and a tool lumen disposed in said carrier. Utsugi in view of Ohshiro fails to positively disclose a guide member disposed at a proximal end of said carrier.

25. Heckeke teaches a similar system for examination and treatment of bodily passages comprising a suction tube 9 and a tool lumen 8 disposed in a carrier 1 (col. 2, lines 45-51).

Heckeke also teaches a guide member 2,13 disposed at a proximal end 2 of the carrier 1 (fig. 1), resulting in an improved device for detecting stenoses or constrictions by direct visual examination in narrow bodily passages or vessels (col. 1, lines 23-26).

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26. It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the endoscope of Utsugi in view of Ohshiro with the above discussed limitations as taught by Heckeles in order to have provided an improved device for detecting stenoses or constrictions by direct visual examination in narrow bodily passages or vessels during surgery.

27. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Utsugi 4,148,308 in view of Ohshiro 4,040,413 further in view of Konomura 5,575,754.

28. Utsugi in view of Ohshiro disclose the invention as discussed above. However, Utsugi in view of Ohshiro fails to positively disclose a linear encoder disposed on said carrier, and a decoder operative to sense linear movement of said carrier with respect to said linear encoder.

29. Konomura teaches an endoscopic apparatus comprising a linear encoder 18 disposed on said carrier 14, and a decoder 19 operative to sense linear movement of said carrier 14 with respect to said linear encoder (col. 4, lines 65-67, col. 5, lines 1-5), resulting in an improved endoscopic apparatus for three-dimensional instrumentation capable of projecting a shadow on the object of instrumentation, so that a measurable distance from the distal end of the endoscope is restricted within a certain range, facilitating a satisfactory accuracy of measurement in an area near the distal end of the endoscope (col. 1, lines 58-64).

30. It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the endoscope of Utsugi in view of Ohshiro with the above discussed limitations as taught by Konomura in order to have provided an improved endoscopic apparatus for three-dimensional instrumentation capable of projecting a shadow on the object of instrumentation, so that a measurable distance from the distal end of the endoscope is restricted

within a certain range, facilitating a satisfactory accuracy of measurement in an area near the distal end of the endoscope.

31. Claim 16-17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boretos 4,403,985 in view of Madni 6,007,482.

32. With respect to claim 16, Boretos discloses a system comprising carrier 11 comprising a fluid passageway 13-17, a jet-action head 12 mounted on a distal end of said carrier 11, said jet-action head 12 being formed with fluid outlets 23,24,26,27 facing a proximal end of said carrier 11, which are in fluid communication with said fluid passageway 13-17 (col. 2, lines 23-68, col. 3, lines 1-68).

33. However, Boretos fails to positively disclose an imaging device 12 disposed in said jet-action head 12, wherein fluid expelled from said fluid-jet outlets propels said imaging system.

34. Madni teaches an imaging system comprising an image device 12 (col. 1, lines 61-67, col. 2, lines 1-67) disposed in the head of the imaging system (fig. 1), resulting in an improved endoscope which is flexible and has greater ease of cleaning (col. 1, lines 30-32) having advanced viewing capability of a tortuous passageway of a human patient (col. 2, lines 8-10).

35. It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the system of Boretos with the above discussed limitations as taught by Madni in order to have provided an improved endoscope which is flexible and has greater ease of cleaning (col. 1, lines 30-32) having advanced viewing capability of a tortuous passageway of a human patient.

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36. With respect to claim 17, Boretos in view of Madni disclose the invention as discussed above. Boretos further teaches the jet-action head 12 is expandable and contractible via 31 (col. 2, lines 48-64).

37. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Limon 5,476,505 in view of Heckeke 4,737,142.

38. Limon discloses the invention as discussed above. However, Limon fails to positively disclose an imaging device disposed in said carrier.

39. Heckeke teaches a similar system for examination and treatment of bodily passages comprising an imaging device 5 disposed in carrier 1 (col. 2, lines 23-68), resulting in an improved device for detecting stenoses or constrictions by direct visual examination in narrow bodily passages or vessels (col. 1, lines 23-26).

40. It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the system of Limon with the above discussed limitations as taught by Heckeke in order to have provided an improved device for detecting stenoses or constrictions by direct visual examination in narrow bodily passages or vessels during surgery.

41. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inaba 4,995,396 in view of Ohshiro 4,040,413.

42. Inaba discloses the invention as discussed above. However, Inaba fails to positively disclose a guide member for a catheter-like procedure.

43. Ohshiro teaches an analogous imaging system having a guide member 42 for a catheter-like procedure (col. 3, lines 50-68, col. 4, lines 1-16), resulting in an improved endoscope with a field of view of which is considerably large in comparison with the conventional endoscopes

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which can be easily inserted into the intestines, the duodenum, and other body cavities (col. 1, lines 35-40).

44. It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the system of Inaba with the above discussed limitations as taught by Ohshiro in order to have provided an improved endoscope with a field of view of which is considerably large in comparison with the conventional endoscopes which can be easily inserted into the intestines, the duodenum, and other body cavities during surgery.

45. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inaba 4,995,396 in view of Mizumoto 4,278,077.

46. Inaba discloses the invention as discussed above. However, Inaba fails to positively disclose a magnet adapted to be attached to an object in a gastrointestinal tract.

47. Mizumoto teaches an imaging system comprising a magnet 12 adapted to be capable of being attached to an object in a gastrointestinal tract (col. 1, lines 59-68, figs. 1-3), resulting in an improved medical camera system which does not induce the impulse of vomiting or sickness to a patient once deployed into the body cavity of a patient (col. 1, lines 15-16 et seq. 20-21).

48. It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the system of Inaba with the above discussed limitations as taught by Mizumoto in order to have provided an improved medical camera system which does not induce the impulse of vomiting or sickness to a patient once deployed into the body cavity of a patient.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALIREZA NIA whose telephone number is (571)270-3076. The examiner can normally be reached on Mo.-Fri.-7:30 AM-5:00 PM EST-Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C. Dvorak can be reached on 571-272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. N./
Examiner, Art Unit 3739
Alireza Nia
April 22nd, 2008

/Linda C Dvorak/
Supervisory Patent Examiner, Art Unit 3739